No. 200300255

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Monsanto Company

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSE , OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSE, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. IN UNITED STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED S(2) SHALL CONFORM TO THE NUMBER OF GENERATIONS SPECIFIED BY THE OWNER OF THE RIGHTS. (84 STAT. 1542 DED, 7 U.S.C. 2321 ET SEQ.)

WHEAT, COMMON

'Benton'

In Testimony Whereof, *I have hereunto set my hand and caused the seal of the* Plant Variety Protection Office *to be affixed at the City of Washington, D.C. this twenty-eighth day of January, in the year two thousand and four.*

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Secretary of Agriculture

Local Reproduction of FORM - OMB NO. 0581-0055

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE DIVISION - PLANT VARIETY PROTECTION OFFICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions and information collection burden statement on reverse)

The following statements are made in accordance with the privacy Act of 1974 (5 U.S.C. 552a)

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421) Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S) *(as it is to appear on the Certificate)*
Monsanto Company

2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER
M98-1661

3. VARIETY NAME
Benton

4. ADDRESS *(Street and No. or R.F.D. No., City, State, and Zip Code)*
700 Chesterfield Parkway North
St. Louis, Missouri 63198

5. TELEPHONE *(include area code)*
636-737-6089

PVPO NUMBER
200300255

6. FAX *(include area code)*
636-737-7250

FILING DATE: MAY 19, 2003

7. GENUS AND SPECIES NAME
Triticum aestivum

8. FAMILY NAME *(Botonical)*
Gramineae

9. CROP KIND NAME *(common name)*
Soft Red Winter Wheat

FEES RECEIVED
FILING AND EXAMINATION FEE: ① 2705.00 947.00
DATE ① 5/19/2003 6/3/2003
CERTIFICATION FEE $ 432.00
DATE 1/16/2004

10. IF THE APPLICANT NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION *(corporation, partnership, association,etc.) (common name)*
Corporation

11. IF INCORPORATED, GIVE STATE OF INCORPORATION
Delaware

12. DATE OF INCORPORATION
1933

13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS
Ms. Sally Metz
700 Chesterfield Parkway North
St. Louis, Missouri 63198
AND
Dr. Rollin Sears
6515 Ascher Road
Junction City, Kansas 66441

14. TELEPHONE *(include area code)*
636-737-6089

15. FAX *(include area code)*
636-737-7250

16. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED *(follow instructions on reverse)*

a. [X] Exhibit A. Origin and Breeding History of the Variety
b. [X] Exhibit B. Statement of Distinctness
c. [X] Exhibit C. Objective Description of the Variety
d. [X] Exhibit D. Additional Description of the Variety
e. [X] Exhibit E. Statement of the Basis of the Applicant's Ownership
f. [X] Voucher Sample *(2,500 viable untreated seeds, or, for tuber propagated varieties veification that tissue culture will be deposited and maintained in a public repository)*
g. [X] Filing and Examination Fee *($2,450)*, made payable to "Treasurer of the United States" *(Mail to PVPO)*

17. DOES THE APPLICANT SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY, AS A CLASS OF CERTIFIED SEED? *(See Section 83(a) of the Plant Variety Protection Act)*
[X] YES *(if "yes", answer items 18 and 19 below)* [ ] NO *(if 'no", go to item 20)*

18. DOES THE APPLICANT SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?
[ ] YES [X] NO

19. IF 'YES' TO ITEM 18, WHICH CLASSES OF PRODUCTION BEYOND BREEDERS SEED?
[ ] FOUNDATION [ ] REGISTERED [ ] CERTIFIED

20. HAS THE VARIETY OR A HYBRID PRODUCED FROM THE VARIETY BEEN RELEASED, USED, OFFERED FOR SALE, OR MARKETED IN THE U.S. OR OTHER COUNTRIES?
[ ] YES *(if "YES", give names of countries and dates)* [X] NO

21. The applicant(s) declare that a viable sample of basic seed of the variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate.

The undersigned applicant(s) is(are) the owner(s) of this sexually reproduced or tuber plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.

Applicant(s) is(are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF APPLICANT (Owner(s))		SIGNATURE OF APPLICANT (Owner(s))	
Sally Metz			
NAME *(Please print or type)* **Sally Metz**		NAME *(Please print or type)*	
CAPACITY OR TITLE **Director Wheat Technology**	DATE	CAPACITY OR TITLE	DATE

SD-470 (04-95)

(See reverse for instructions and information collection burden statement)

200300255

Exhibit A.
Origin and Breeding History of Benton

Benton is a soft red winter wheat developed by Agripro Wheat located at Brookston IN. It was derived from a cross-made in the 1992 spring greenhouse using Pioneer 2510 and 90M*7742 (77*42-80 /SW78-171). 77*42-80's pedigree is Hart/Ruler and SW78-171's pedigree is Knox/SRW14-74A (SRW14-74A is an Agripro breeding line). A bulk breeding method was used to develop Benton. F1, F2, F3 and F4 populations were grown in Indiana. From the F4 bulk 125 heads were randomly selected for height and plant health and were planted as head rows. A single F5 head row was advanced to preliminary yield testing as an F6 in 1998. Benton was advanced on the criteria short height, disease resistance and excellent yield performance.

In 2000, 100 headrows were grown in Lafayette, IN and evaluated for phenotypic similarity. All 100 rows were selected and bulk harvested. A 0.2 acre initial Breeders seed increase was grown in Colorado in 2001. A 4.0 acre Breeders seed increase was grown in Hereford TX in 2002. Foundation seed was planted in the Fall of 2002.

Benton has been uniform and stable since 2001. Less than 0.8% of the plants were rogued from the Breeders seed increase in 2002. Approximately 84% of the rogued variant plants were taller height wheat plants (8 to 15 cm) and 6% were awned. Up to 1% variant plants may be encountered in subsequent generations.

Exhibit B.
Statement of Distinctness

Benton is most similar to the soft red winter wheat 'Shiloh'. However it can be distinguished by the following characteristics

- Benton has a wide glume width (Berthoud,CO 2001, 2002). Shiloh has a medium glume width (Berthoud,CO 2001, 2002).

- Benton has long brush hairs on the seed and occupies a large area of the seed (Berthoud,CO 2001, 2002). Shiloh has a medium brush length on the seed and occupies a medium area of the seed (Berhoud,CO 2001, 2002).

- Benton is apically awnletted (Berthoud,CO 2001, 2002). Shiloh is awnletted (Berthoud,CO 2001, 2002).

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE DIVISION
BELTSVILLE, MARYLAND 20705

EXHIBIT C
(Wheat)

OBJECTIVE DESCRIPTION OF VARIETY

WHEAT (*Triticum* Spp.)

NAME OF APPLICANT(S)

Monsanto Company

FOR OFFICIAL USE ONLY

PVPO NUMBER

200300255

ADDRESS (*Street and No. or R.F.D. No., City, State, and Zip Code*)

700 Chesterfield Parkway North

St. Louis, Missouri 63198

NAME OR EXPERIMENTAL DESIGNATION

Benton

Place the appropriate number that describes the varietal character of this variety in the boxes below.
Place a zero in the first box when number is either 99 or less or 9 or less respectively. Data for quantitative plant characters should be based on a minimum of 100 plants. Comparative data should be determined from varieties entered in the same trial. Royal Horticultural Society or any recognized standard may be used to determine plant colors; designate system used.
Please answer all questions for your variety; lack of response may delay progress of your application.

1. KIND:

[1] 1=Common 2=Durum 3=Club 4=Other (*specify*) _____

2. VERNALIZATION:

[2] 1=Spring 2=Winter 3=Other (*specify*) _____

3. COLEOPTILE ANTHOCYANIN:

[1] 1=Absent 2=Present

4. JUVENILE PLANT GROWTH:

[2] 1=Prostrate 2=Semi-erect 3=Erect

5. PLANT COLOR (*boot stage*):

[3] 1 = Yellow-Green 2 = Green 3 = Blue-Green

6. FLAG LEAF (*boot stage*):

[1] 1 = Erect 2 = Recurved

[2] 1 = Not Twisted 2 = Twisted

7. EAR EMERGENCE:

[0][0] Number of Days Earlier Than _____ *

[0][3] Number of Days Later Than **Patton** *

8. ANTHER COLOR:

[1] 1 = YELLOW 2 = PURPLE

9. PLANT HEIGHT (*from soil to top of head, excluding awns*):

[0][0] cm Taller Than _____ *

[0][4] cm Shorter Than **Patton** *

* Relative to a PVPO-Apprved Commercial Variety Grown in the Same Trial

10. STEM:

A. ANTHOCYANIN

[1] 1= Absent 2=Present

B. WAXY BLOOM

[2] 1=Absent 2=Present

C. HAIRINESS (*last internode of rachis*)

[2] 1=Absent 2=Present

D. INTERNODE (*specify number*) _____

[1] 1=Hollow 2=Semi-solid 3=Solid

E. PEDUNCLE

[1] 1=Erect 2=Recurved

[0][5] cm Length

11. HEAD (*at Maturity*):

A. DENSITY

[2] 1=Lax 2=Middense 3= Dense

B. SHAPE

[1] 1 = Tapering 2= Strap 3 = Clavate 4 = Other (*specify*) _____

C. CURVATURE

[2] 1 = Erect 2 = Inclined 3 = Recurved

D. AWNEDNESS

[2] 1 = Awnless 2 = Apically Awnletted 3 = Awnletted 4 = Awned

12. GLUMES (*at Maturity*):

A. COLOR

[1] 1 = White 2 = Tan 3 = Other (*specify*) _____

B. SHOULDER

[2] 1 = Wanting 2 = Oblique 3 = Rounded 4 = Square 5 = Elevated 6 = Apiculate

C. BEAK

[1] 1 = Obtuse 2 = Acute 3 =Acuminate

D. LENGTH

[2] 1 = Short (ca. 7mm) 2 = Medium (ca. 8mm) 3 = Long (ca. 9mm)

E. WIDTH

[3] 1 = Narrow (ca. 3mm) 2 = Medium (ca. 3.5mm) 3 = Wide (ca. 4mm)

13. SEED:

A. SHAPE

[1] 1 = Ovate 2 = Oval 3 = Elliptical

B. CHEEK

[1] 1=Rounded 2=Angular

C. BRUSH

[3] 1=Short 2=Medium 3=Long

[1] 1 = Not Collared 2 = Collared

D. CREASE

[1] 1 = Width 60% or less of Kernel
2 = Width 80% or less of Kernel
3 = Width Nearly as Wide as Kernel

[1] 1 = Depth 20% or less of Kernel
2 = Depth 35% or less of Kernel
3 = Depth 50% or less of Kernel

13. SEED: (continued)

E. COLOR

[3] 1 = White 2 = Amber 3 = Red 4 = Other (*specify*) _____

F. TEXTURE

[2] 1=Hard 2=Soft

G. PHENOL REACTION (*see instructions*):

[0] 1 = Ivory 2 = Fawn 3 = Light Brown 4 = Dark Brown 5 = Black

14. DISEASE: (0=Not Tested; 1=Susceptible; 2=Resistant; 3=Intermediate; 4=Tolerant) 5=moderately resistant 6=moderately susceptible

PLEASE INDICATE THE SPECIFIC RACE OR STRAIN TESTED

[0]	Stem Rust (*Puccinia graminis* f. sp. *tritici*) Field races	[0]	Leaf Rust (*Puccinia recondita* f. sp. *tritici*) Field races
[0]	Stripe Rust (*Puccinia striiformis*)	[0]	Loose Smut (*Ustilago tritici*)
[3]	Tan Spot (*Pyrenophora tritici-repentis*)	[0]	Flag Smut (*Urocystis agropyri*)
[0]	Halo Spot (*Selenophoma donacis*)	[0]	Common Bunt (*Tilletia tritici or T. laevis*)
[0]	*Septoria nodorum* (Glume Blotch)	[0]	Dwarf Bunt (*Tilletia controversa*)
[0]	*Septoria avenae* (Speckled Leaf Disease)	[0]	Karnal Bunt (*Tilletia indica*)
[0]	*Septoria tritici* (Speckled Leaf Blotch) Field races	[5]	Powdery Mildew (*Erysiphe graminis* f. sp. *tritici*) Field races
[1]	Scab (*Fusarium* spp.)	[0]	Snow Molds
[0]	Black Point (Kernel Smudge)	[0]	Common Root Rot (*Fusarium, Cochliobolus* and *Bipolaris* spp.)
[0]	Barley Yellow Dwarf Virus (BYDV)	[0]	Rhizoctonia Root Rot (*Rhizoctonia solani*)
[5]	Soilborne Mosaic Virus (SBMV) Field races	[0]	Black Chaff (*Xanthomonas campestris* pv. *translucens*)
[0]	Wheat Yellow (Spindle Streak) Mosaic Virus Field races	[0]	Bacterial Leaf Blight (*Pseudomonas syringae* pv. *syringae*)
[0]	Wheat Streak Mosaic Virus (WSMV) Field races	[ ]	Other (*specify*)
[ ]	Other (*specify*)	[ ]	Other (*specify*)
[ ]	Other (*specify*)	[ ]	Other (*specify*)
[ ]	Other (*specify*)	[ ]	Other (*specify*)

15. INSECT: (0=Not Tested; 1=Susceptible; 2=Resistant; 3=Intermediate; 4=Tolerant)

PLEASE SPECIFY BIOTYPE (where needed)

0	Hessian Fly (*Mayetiola destructor*)		Other (*specify*)
0	Stem Sawfly (*Cephus* spp.)		Other (*specify*)
0	Cereal Leaf Beetle (*Oulema melanopa*)		Other (*specify*)
0	Russian Aphid (*Diuraphis noxia*)		Other (*specify*)
0	Greenbug (*Schizaphis graminum*)		Other (*specify*)
0	Aphids		

16. ADDITIONAL INFORMATION ON ANY ITEM ABOVE, OR GENERAL COMMENTS:

None

Exhibit D.
Additional Description of Benton

Benton is a soft red winter wheat bred and developed by AgriPro Wheat. Benton is a medium height wheat with medium maturity and very good yield performance. Benton provides intermediate protection to Tan spot, is moderately resistant to Soilborne mosaic virus and Powdery mildew and is susceptible to Scab.

Juvenile growth habit is semierect. Plant color at boot stage is blue green at boot stage. Flag leaf at boot stage is erect and twisted. Waxy bloom is present on the head, stem and flag leaf sheath. Anther color is yellow. Head shape is tapering and apically awnletted. Glumes are glabrous, wide in width and midlong in length with oblique shoulders and obtuse beaks. Seed shape is ovate. Brush hairs are long in length and occupy a large area of the seed tip. Seed crease depth is shallow and width is narrow. Seed cheeks are rounded.

Benton is primarily adapted to Missouri, Kentucky, Illinois, Indiana, Ohio and Maryland.

AgriPro Wheat

SOFT WHEAT QUALITY SUMMARY

Year	LabNo	Loc-Code	Milling Quality			Baking Quality			
			Brk Flr %	Tot Flr %	Wht Prot 14%mb	Flr Prot 14%mb	C.Diam mm	T.G R	Norris Hard
					M98-1661				
2001	4720	HN-91215	38.4	70.2	9.7	8.5	17.7	5	26
2000	7347	HN-91309	44.9	68.2	9.5	8.0	19.0	4	6
2000	7277	LF-91309	41.9	66.7	11.9	10.1	18.0	8	11
1999	7113	CI-81309	40.0	67.8	10.1	8.7	18.3	4	18
1999	7042	LF-81309	39.8	65.9	9.9	8.5	18.0	4	14
		Average :	**41.0**	**67.8**	**10.2**	**8.8**	**18.2**	**5**	**15**
					CALDWELL				
2001	4716	HN-91229	41.4	71.2	9.8	8.3	19.2	3	27
2000	7346	HN-91301	48.2	69.9	9.3	7.6	20.0	2	6
2000	7276	LF-91301	42.7	68.3	11.5	9.6	19.3	4	11
1999	7111	CI-81301	41.1	68.4	10.3	8.9	18.8	3	19
1999	7040	LF-81301	41.9	67.9	10.9	9.7	18.0	5	12
		Average :	**43.1**	**69.1**	**10.4**	**8.8**	**19.1**	**3**	**15**

Ratings: 1-2= Excellent 9-8=Unacceptable

Advanced yield testing has been conducted for the past 4 years in Agripro trials in Missouri, Arkansas, Illinois, Indiana, Ohio, and Maryland. M98-1661 is primarily adapted to Missouri, Kentucky, Illinois, Indiana, Ohio, and Maryland.

Yield data:

M98-1661	2002		2001		2000
Bu/A	73		67		68
% of mean	112%		108%		105%
Reps	2		2		2
# Locs	11		9		9
Checks Hopewell	63	Patterson	62	Patterson	59
Patton	64	Patton	66	Patton	62
Pio 25R37	71	Pio 2540	64	Pio 2540	64
Roane	67	Roane	63	Caldwell	52

2002 Test locations: Findlay OH, Brookston IN, Ansonia OH, Marion OH, Pana Ill, Sullivan IN, St. Jacobs IL, Haubstadt IN, Carmi IL, Sikeston MO, Jonesboro AR, Columbia MO, Wye MD and Keedysville MD.

2001 Test locations: Findlay OH, Marion OH, Woodburn IN, Ansonia OH, Pana IL, St. Jacobs, IL, Haubstadt IN, Carmi IL, Sikeston MO, Columbia MO and Bowling Green KY.

2000 Test location: Woodburn IN, Findlay OH, Ansonia OH, Lafayette IN, Pana IL, St. Jacobs IL, Sullivan IN, Haubstadt IN, Jonesboro AR and Columbia MO.
Test location: Woodburn IN, Findlay OH, Ansonia OH, Lafayette IN, Pana IL, St. Jacobs IL, Sullivan IN, Haubstadt IN, Jonesboro AR and Columbia MO.

	2002	2001	2000
Height			
M98-1661	37 in	37 in	35 in
Patton	39 in	39 in	37 in
Caldwell		41 in	
Heading	Julian days		
M98-1661	141	132	124
Patton	136	130	120
Caldwell	142	134	124
Test Weight	#/Bu.		
M98-1661	59	59	54
Patton	61	60	54
Caldwell	59	61	54

2002 Disease Notes {1-9 scale with 1 best}

	Tan Spot	Sept Nodorum	Sept tritici	Scab	BYDV	SBMV	Leaf Rust	Powdery Mildew
M98-1661	4	1	1	5	6	3	2	2
Patton	4	6	4	5	6	5		5
Caldwell	6	7	5			3	5	5

Tan spot:	Brookston IN, St.Jacobs IL,
Septoria Nodorum:	Findlay OH, Carmi IL, St. Jacobs IL
Septoria Tritici:	Carmi IL, Haubstadt IN, St.Jacobs IL
Scab:	Findlay OH
BYDV:	Carmi IL
SBMV:	Sullivan IN, Urbana IL
Leaf Rust:	Keedysville MD, Wye MD, Columbia MO
Powdery Mildew	Findlay OH, Marion OH, Keedysvill MD, Wye MD

2001 Disease Notes {1-9 scale with 1 best}

	Tan Spot	Sept Nodorum	Sept tritici	Scab	BYDV	SBMV	Leaf Rust	Powdery Mildew
M98-1661	4	4				1	5	2
Patton	4					2	3	3
Caldwell								

Tan spot:	Ansonia, OH Carmi IL, St.Jacobs IL, Woodburn IN
Septoria Nodorum:	Carmi IL
SBMV:	Sullivan IN
Leaf Rust:	Haubstadt IN
Powdery Mildew	Lafayette IN

Exhibit E.
Statement of the Basis of Applicant's Ownership

The variety for which Plant Variety Protection is hereby sought was developed by Curtis Beazer, an employee of AgriPro Wheat. By agreement between employees and AgriPro Wheat all rights to any invention, discovery, or development made by the employee while employed by AgriPro Wheat, were assigned to AgriPro Wheat, with no rights of any kind pertaining to 'Benton' being retained by the employees.

By contractual agreement the variety 'Benton' was purchased from AgriPro Wheat, a business unit of Advanta USA, Inc. in June of 1996 and is currently owned by Monsanto Company.